

Resinify Technology

Resinify BasePro

PREPARING TO PRINT

Preparing the Resin:

BasePro light curable resin must be properly mixed before use.

Prepare the resin: Before using this material for the first time or after prolonged storage, it must be homogenized. Shake the material bottle vigorously for approximately 5 minutes. Be aware that vigorous shaking may cause air bubbles to form. Allow the material to rest in the bottle for an additional 5 minutes to allow any air bubbles to rise and dissipate before use.

Preparing the 3D Printer:

Setup the 3D printer for **BasePro** light curable resin (see the User Manual for the specific 3D printer used). Fill the material tray or the cassette. Use the spatula from the Starter Kit or a material mixing card if available to carefully mix the resin in the material tray or cassette. Mix until there is a uniform color. Take care not to damage the surface of the material tray or cassette.

To avoid contamination, a separate material tray or cassette dedicated to **BasePro** must be used.

Preparing the STL for 3D printing, Software Considerations:

To prepare the .stl file for 3D printing and generate the support structures.

For accurate results, denture bases must be built vertically orientated to the build platform, with supports connecting only to the labial border. In this orientation, additionally, manual post-processing of the sides in direct contact with the oral mucosa will be avoided.

Transfer constructed STL files of full denture bases to the printer. See the printer's User Manual / Software User Manual.

D. STARTING THE PRINT

Start the printing process as described in the printer's User Manual.

E. REMOVE PRINTED PARTS FROM 3D PRINTER

When the printing process is complete, carefully remove the models from the build platform.

NOTE: Always wear personal protective equipment when interacting with uncured material.

1. Open the printer's hood.
2. Remove the build platform from the printer.

3. Place the build platform on a sturdy surface. Use the provided scraper from the Starter Kit to carefully remove all models from the build platform. Place models on a clean paper towel and protect from ambient light.

F. CLEANING THE MODELS

Set up the magnetic stirrer with a bar or lab shaker in the Post Processing area and add Isopropyl Alcohol (min. >96 %) into an appropriately sized container. See the stirrer / shaker manual for setup instructions.

Clean the printed parts using the following procedure:

1. Clean in Isopropyl Alcohol (min. >96 %) for a maximum of 5 minutes in the stirrer or lab shaker (no ultrasonic bath). Clean and rinse gaps separately under pouring conditions.
2. Dry with compressed air.
3. Clean in Isopropyl Alcohol (min. >96 %) for a maximum of 2 minutes in the stirrer or lab shaker (no ultrasonic). Clean and rinse gaps separately under pouring conditions.
4. Dry with compressed air.
5. Parts must be completely dry before post-curing, e.g., airdry @ 15min.
6. Remove the supports with a scalpel or similar tool.

G. ASSEMBLING THE DENTURES

Denture bases printed from **BasePro** may be bonded to denture teeth printed from **Resinify CrownPro™** or **Resinify TempCrown™** light curable resin or conventionally fabricated artificial teeth (PMMA). The denture bases printed using **BasePro** must be uncured.

If using printed artificial teeth with Resinify CrownPro™ or Resinify TempCrown™ (see the corresponding IFU for manufacturing instruction):

1. Use the pipette to place drops of uncured **BasePro** in the alveoli.
2. The 3D printed teeth must be uncured and unpolished prior to adding bonding agent (optional) and attaching to the denture.
3. Immediately after place the teeth over the liquid photopolymer.
4. Follow with the step "Post-cure the part."

If using conventionally fabricated artificial teeth (PMMA):

1. The tooth neck must be sandblasted or ground with a dental milling machine prior to adding a bonding agent and attaching it to the denture.
2. A bonding agent must be used to coat the tooth neck. (see IFU of bonding agent)

or

Use the pipette to place drops of uncured **BasePro** in the alveoli.

3. Immediately after that place the teeth over the liquid photopolymer.
4. Follow with the step "Post-cure the part."

Post-cure the part using the light curing units: Do not stack dentures or allow parts to touch in the light curing unit. Make sure that any excess resin that has been squeezed out of the alveolus is removed.

1. **Cure:** Parameters: 2x 20 minutes @ 40°C (20 minutes per side).
2. **Otoflash G171:** Parameters: 2x3000 flashes (i.e., 3000 flashes per side); Recommendation: under inert gas (e.g., nitrogen)
3. **Wicked Engineering CUREbox Plus:** Parameters: 2x 25minutes with 50°C (25minutes per side).

H. FINISHING THE DENTURES

1. Remove connector(s) with a scalpel or similar tool,
2. Use a commercial dental handpiece to clean the remaining support structures and remove excess resin around the teeth.
3. Polish the surface with a commercial dental hand piece or dental polishing machine, *Use the device according to instructions for use by the manufacturer.* Due to the polishing process, minimal differences in fit can occur. Therefore, the printed product should be inspected on a dental model after processing.
4. Post-cure the product in the light curing units:
 - i. **Cure** for 5 minutes at 30° C
 - ii. **Otoflash G171** with 1000 flashes
 - iii. **Wicked Engineering CUREbox Plus** for 5 minutes at 30° C
5. The product can now be used on the patient.

12 - Disinfection and Sterilization

Full denture bases made of **BasePro** light curable resin can be disinfected with any of the following disinfectants:

- 70 % Ethanol solution in water
- Green&Clean AD
- MD 520
- PrintoSept-ID
- Dentavon

The disinfecting solutions must be used according to the manufacturer's instructions. Products from **BasePro** light curable resin cannot be sterilized.

13 - Cleaning Instructions for Patients

The denture can be cleaned by the patient with clear water, a toothbrush, and toothpaste. Avoid abrasive or whitening agents in some kinds of toothpaste which can damage the surface of the denture. After cleaning with clear water, the denture should be dried and not soaked in liquid.

Note: Care should be taken to ensure that the dentures are not shipped or stored soaking in water as this can adversely affect the mechanical properties.

14 - Reporting Undesirable Effects

In the event of adverse effects, reactions, or similar occurrences arising from the use of these products, including those not listed in this Instruction for Use, these must be reported immediately by opening a support ticket via the website <https://resinifytechnology.com/> and to the competent authority of the Member State in which the user and/or patient is established.

15 - Manufacturer

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16 - Legal Disclaimer

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